



# NITROGEN DIOXIDE

UN 1067

Shipping Name: Dinitrogen tetroxide, liquefied

Other Names: Dinitrogen tetroxide

Nitrogen oxide

Nitrogen tetroxide

Oxides of nitrogen



## **WARNING! • POISON! BREATHING THE VAPOR CAN KILL YOU!**

- Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
- **STRONG OXIDIZER! WILL INCREASE THE INTENSITY OF A FIRE! MAY CAUSE FIRE UPON CONTACT WITH COMBUSTIBLES!**

### **Hazards:**

- Odor is not a reliable indicator of the presence of toxic amounts of gas
- Vapors are heavier than air and will collect and stay in low areas
- Irritating to skin, eyes, nose and lungs; can cause burns of the skin, eyes and nose
- Container may BLEVE or explode when exposed to fire
- Use water with caution - reacts with water to form nitric acid and nitrous acid
- May interfere with the body's ability to use oxygen

### **Awareness and Operational Level Training Response:**

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

### **Description:**

- Yellow liquid or red-brown gas
- Pungent, irritating odor
- Reacts with water to form toxic nitric acid
- Nonflammable but may cause combustibles to ignite
- Vapors are heavier than air and will collect and stay in low areas
- Produces large amounts of vapor
- Boils at 70° F; Freezes at 17° F

### **Operational Level Training Response:**

#### **RELEASE, NO FIRE:**

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water well away from the material to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

#### **FIRE:**

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material
- Cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of expanding), withdraw immediately to a secure location

### **First Aid:**

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
  - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
  - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
  - ♦ Eye - rinse eyes with large volumes of water or saline for 15 minutes
  - ♦ Swallowed - do not make the victim vomit
- Seek medical attention
- For skin burns decontaminate with water and apply a clean dry dressing
- Note to physician: can cause methemoglobinemia; if symptoms indicate, methylene blue is the initial antidote

CAS: 10102-44-0